

## **ABSTRACT**

**Title:** Kinesiology analysis of the horizontal jump in bike trial

**Cíle práce:** The aim of this thesis is to verify the use of non-specific strength-training funds for the development of horizontal jump in bike trial.

### **Methods:**

- Content analysis of documents
- Method interview with assistant work Mgr. Marek Jelinek Ph.D.
- Method interview with the technician when recording data
- Case Study riders
- The method of data collection using surface electromyography
- Data Analysis
- Data processing software MS Excel - evaluation of differences of values sized muscle action potential in the different types of exercise
- Synthesis - making inferences and discussions

**Results:** The list of exercises for developing strength abilities of the lower limbs, which are part of non-specific resources and influence the development of the horizontal jump in cyklotrial. Ranking exercises, which are in accordance with the measured values for effective development of horizontal jump in bike trial. The exercises are sorted from highest values activity of all muscles:

- 1st Squat with free weights
- 2nd Jump from second place
- 3rd Deadlift
- 4th Plyometrie
- 5th High Jump
- 6th Legpress

**Key words:** Cycling trails, biking, surface electromyography.